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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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2500 DOCKERY LANE
RALEIGH, NC 27606

EXAMINER

SCHNURR, JOHN R

ART UNIT	PAPER NUMBER
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2623

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/774,871	Applicant(s) CANDELORE ET AL.	
	Examiner JOHN R. SCHNURR	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-12, 15-18, 28-35 and 58-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-12, 15-18, 28-35 and 58-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the Amendment after Non-Final Rejection filed 05/15/2008. Claims 8-12, 15-18, 28-35 and 58-64 are pending and have been examined.
2. The information disclosure statement (IDS) submitted on 05/05/2008 was considered by the examiner.

Response to Arguments

3. Applicant's arguments, see Remarks pg. 8-12, filed 05/15/2008, with respect to the rejections of claims 8-12, 15-18, 28-35 and 58-64 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is made in view of newly found prior art references.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 58 and 63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 58, in the "an encrypter" step, states the device re-encrypts the decrypted packets and the certain of the encrypted packets. The decrypted packets are defined by the claim to be the same packets as the certain encrypted packets. For the

purposes of examination the term “certain of the encrypted packets” found in the “an encrypter” step was interpreted as “certain of the *unencrypted* packets”.

Claim 63, in the “re-encrypting” step, states the decrypted first packets and the clear packets have the first PID. In the “remapping” step the first PIDs are remapped to the clear packet PID, therefore the decrypted first packets and the clear packets have the PID of the clear packets not the first PID. For the purposes of examination it was assumed that after remapping the first packets and clear packets are identified by the clear packets PID.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims **9, 10, 15-17, 28-30, 32, 33, 58-61, 63 and 64** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Candelore et al. (US Patent Application Publication 2003/0046686)**, herein Candelore, in view of **Lu et al. (US Patent 7,336,785)**, herein Lu.

8. Applicant has provided evidence in this file showing that the invention was owned by, or subject to an obligation of assignment to, the same entity as Candelore at the time this invention was made, or was subject to a joint research agreement at the time this invention was made. However, reference Candelore additionally qualifies as prior

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art under another subsection of 35 U.S.C. 102, and therefore, is not disqualified as prior art under 35 U.S.C. 103(c).

Applicant may overcome the applied art either by a showing under 37 CFR 1.132 that the invention disclosed therein was derived from the invention of this application, and is therefore, not the invention "by another," or by antedating the applied art under 37 CFR 1.131.

Consider **claim 58**, Candelore clearly teaches a device for manipulation of a stream of data, comprising:

means within the device for receiving a stream of data, the stream of data comprising a plurality of packets each having a packet identifier (PID) associated therewith, wherein the stream of data is selectively encrypted with the encrypted packets having a PID that is different from the PID of packets that are not encrypted; **(The STB 236 of Fig. 5 receives the output stream of Fig. 4. The output stream of Fig. 4 includes clear packets assigned to a primary PID and secondary encrypted packets assigned to a secondary PID, [0061]-[0062].)**

a PID remapper within the device that selects certain of the packets for remapping of the packet identifiers associated with the selected packets, the selected packets comprising certain of the encrypted packets, and remaps the packet identifiers of the selected packets so that the packets are associated with a new packet identifier, and wherein the new packet identifier is a packet identifier used by certain of the unencrypted packets; **(Fig. 5: Packets containing the secondary PID are selected at 274 and remapped to the primary PID at 292, [0063].)**

discarding encrypted packets having packet identifiers that are not remapped; **(Fig. 5: EA packets are dropped at 278, [0062].)**

wherein the remapper selectively remaps packets in at least one of the following manners:

remapping packets to substitute packets in the stream of data on a packet for packet basis; remapping packets to provide for insertion of a packet into the stream of data; remapping one packet for multiple packets; or mapping multiple packets for one packet; **(Secondary packets are inserted into the primary packet stream, [0063].)**

means situated within the device for discarding encrypted packets that are not the selected encrypted packets; **(Fig. 5: EA packets are dropped at 278, [0062].)**

a decrypter within the device that decrypts the selected encrypted packets; **(Fig. 5 Decrypt 296)**

However, Candelore does not explicitly teach the encrypted stream of data is sent from a host to a CableCard device for decryption and the decrypted stream is re-encrypted before being sent from the CableCard device back to the host.

In an analogous art Lu, which discloses a system for decrypting a data stream, clearly teaches the encrypted stream of data is sent from a host to a CableCard device for decryption and the decrypted stream is re-encrypted before being sent from the CableCard device back to the host. **(col. 4 lines 30-64 and col. 6 lines 16-19)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Candelore by using a point of deployment (POD) module for data stream decryption and providing an encrypted communication channel between the host and POD, as taught by Lu, for the benefit of enhanced security (Lu col. 1 line 20 to col. 2 line 37).

Consider **claim 59**, Candelore combined with Lu, as in claim 58, clearly teaches the remapping is carried out prior to the decrypting. **(Fig. 5 [0063] Candelore)**

Consider **claim 60**, Candelore combined with Lu, as in claim 58, clearly teaches the remapping is carried out prior to the re-encrypting. **(Lu teaches decrypting the selected packets then re-encrypting for transmission to the host, col. 4 lines 61-64. Candelore teaches decrypting includes remapping [0063].)**

Consider **claim 61**, Candelore combined with Lu, as in claim 58, clearly teaches the remapping is carried out after the re-encrypting. **(Encrypted packets maybe remapped, [0063] Candelore)**

Consider **claim 63**, Candelore clearly teaches a method of manipulating a stream of data in a device, comprising:

receiving a stream of data, the stream of data comprising a plurality of packets each having a packet identifier (PID) associated therewith, wherein the stream of data is multiple selectively encrypted and includes clear packets, first encrypted packets and second encrypted packets, the first and second encrypted packets being encrypted under differing

encryption methods; **(The STB 236 of Fig. 5 receives the output stream of Fig. 4. The output stream of Fig. 4 includes clear packets and encrypted packets assigned to a primary PID and other encrypted packets assigned to a secondary PID, [0061]-[0062]. The first and second encrypted packets are encrypted using different encryption methods, [0035].)**

the first encrypted packets having a first PID that differs from the PID used to identify the clear packets; **(The output stream of Fig. 4 includes clear packets assigned to a primary PID and secondary encrypted packets assigned to a secondary PID, [0061]-[0062].)**

determining a value for the first PID;
selecting the first encrypted packets having the first PID for remapping of the PIDs; **(Fig. 5: Packets containing the secondary PID are selected at 274 and remapped to the primary PID at 292, [0063].)**

discarding the second encrypted packets; **(Fig. 5: EA packets are dropped at 278, [0062].)**

remapping the first PIDs of the first encrypted packets so that the first encrypted packets have the same PID that is associated with the clear packets; **(Fig. 5: Packets containing the secondary PID are selected at 274 and remapped to the primary PID at 292, [0063].)**

decrypting the selected first encrypted packets; **(Fig. 5 Decrypt 296)**

However, Candelore does not explicitly teach the encrypted stream of data is sent from a host to a CableCard device for decryption and the decrypted stream is re-encrypted before being sent from the CableCard device back to the host.

In an analogous art Lu, which discloses a system for decrypting a data stream, clearly teaches the encrypted stream of data is sent from a host to a CableCard device for decryption and the decrypted stream is re-encrypted before being sent from the CableCard device back to the host. **(col. 4 lines 30-64 and col. 6 lines 16-19)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Candelore by using a point of deployment (POD) module for data stream decryption and providing an encrypted communication channel between the host and POD, as taught by Lu, for the benefit of enhanced security (Lu col. 1 line 20 to col. 2 line 37).

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Consider **claim 9**, Candelore combined with Lu, as in claim 63, clearly teaches the remapping comprises remapping packets to substitute packets in the stream of data on a packet for packet basis. **(Fig. 5: The remapped packets EB replace dropped packets EA, [0062] Candelore.)**

Consider **claim 10**, Candelore combined with Lu, as in claim 63, clearly teaches the remapping comprises remapping packets to provide for insertion of a packet into the stream of data. **(Secondary packets are inserted into the primary packet stream, [0063].)**

Consider **claim 15**, see claim 59.

Consider **claim 16**, Candelore combined with Lu, as in claim 58, clearly teaches the remapping is carried out after the decrypting. **(Fig. 5 [0063] Candelore)**

Consider **claim 17**, see claim 61.

Consider **claim 64**, Candelore clearly teaches a device for manipulation of a stream of data, comprising:

means within the device for receiving a stream of data, the stream of data comprising a plurality of packets each having a packet identifier (PID) associated therewith, wherein the stream of data is multiple selectively encrypted and includes clear packets, first encrypted packets and second encrypted packets, the first and second encrypted packets being encrypted under differing encryption methods; **(The STB 236 of Fig. 5 receives the output stream of Fig. 4. The output stream of Fig. 4 includes clear packets and encrypted packets assigned to a primary PID and other encrypted packets assigned to a secondary PID, [0061]-[0062]. The first and second encrypted packets are encrypted using different encryption methods, [0035].)**

the first encrypted packets having a first PID that differs from the PID used to identify the clear packets; **(The output stream of Fig. 4 includes clear packets assigned to a primary PID and secondary encrypted packets assigned to a secondary PID, [0061]-[0062].)**

a PID remapper within the device that selects the first encrypted packets having the first PID for remapping of the PIDs, and remaps the PIDs of the first encrypted packets the first PIDs of the first encrypted packets so that the first encrypted packets have the same PID that is associated with the clear packets; **(Fig. 5: Packets containing the secondary PID are selected at 274 and remapped to the primary PID at 292, [0063].)**

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means situated within the device for discarding the second encrypted packets; **(Fig. 5: EA packets are dropped at 278, [0062].)**

a decrypter within the device that decrypts the first encrypted packets; **(Fig. 5 Decrypt 296)**

However, Candelore does not explicitly teach the encrypted stream of data is sent from a host to a CableCard device for decryption and the decrypted stream is re-encrypted before being sent from the CableCard device back to the host.

In an analogous art Lu, which discloses a system for decrypting a data stream, clearly teaches the encrypted stream of data is sent from a host to a CableCard device for decryption and the decrypted stream is re-encrypted before being sent from the CableCard device back to the host. **(col. 4 lines 30-64 and col. 6 lines 16-19)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Candelore by using a point of deployment (POD) module for data stream decryption and providing an encrypted communication channel between the host and POD, as taught by Lu, for the benefit of enhanced security (Lu col. 1 line 20 to col. 2 line 37).

Consider **claim 28**, see claim 59.

Consider **claim 29**, see claim 60.

Consider **claim 30**, see claim 61.

Consider **claim 32**, see claim 9.

Consider **claim 33**, see claim 10.

9. Claims **8, 18, 31 and 62** are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Candelore et al. (US Patent Application Publication**

2003/0046686) in view of **Lu et al. (US Patent 7,336,785)**, as applied to claims 58, 63

and 64 above, further in view of **Safadi (US Patent 6,883,050)**.

Consider **claims 8, 18, 31 and 62**, Candelore combined with Lu, as in claims 58, 63 and 64, clearly teaches a method of manipulating a stream of data in a CableCard device.

However, Candelore combined with Lu does not explicitly teach the CableCard being OpenCable compliant.

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In an analogous art Safadi, which discloses a system for interfacing a POD and a host device, clearly teaches using an OpenCable compliant POD. (**Column 2 lines 16-33**)

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Candelore combined with Lu by using an OpenCable compliant POD, as taught by Safadi, for the benefit of allowing fast efficient data sharing between the POD and host (see column 2 lines 32-33 Safadi).

10. Claims **11, 12, 34 and 35** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Candelore et al. (US Patent Application Publication 2003/0046686)** in view of **Lu et al. (US Patent 7,336,785)**, as applied to claims 63 and 64 above, further in view of **Hodges et al. (US Patent Application Publication 2003/0046687)**, herein Hodges.

Consider **claims 11, 12, 34 and 35**, Candelore combined with Lu, as in claims 63 and 64, clearly teaches a method of manipulating a stream of data in a CableCard device by replacing packets.

However, Candelore combined with Lu does not explicitly teach inserting multiple packets for one packet or one packet for multiple packets.

In an analogous art Hodges, which discloses a system for manipulating digital programming, clearly teaches inserting multiple packets for one packet or one packet for multiple packets. (**Substitute content can be of any duration, [0024]**)

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Candelore combined with Lu by inserting multiple packets for one packet or one packet for multiple packets, as taught by Hodges, for the benefit of substituting content without affecting production quality (see [0003]-[0006]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN R. SCHNURR whose telephone number is

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(571)270-1458. The examiner can normally be reached on Monday - Friday, 8:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JRS

**/Christopher Grant/
Supervisory Patent Examiner, Art Unit 2623**